IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Examiner: Jacob Y. Choi Group Art Unit: 2875

In re Application of: CHOI, Daniel S.

Serial No: 10/603,568

Filing Date: 25 JUNE 2003

For: Removable Light

REPLY BRIEF

Mail Stop APPEAL BRIEF – PATENTS Commissioner of Patents and Trademarks P.O. Box 1450 Alexandria, VA 22313-1450

Dear Commissioner:

Appellants submit this Reply Brief to the Board of Patent Appeals and Interferences in response to the Examiner's Answer of May 31, 2007.

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ARGUMENT

A. Claims 1-13 and 15-30 are not obvious over Shoji in view of Grisamore.

- 1. Shoji is not within the scope of the relevant prior art
 - a. The Examiner improperly argues that one lighting problem is the same as any other lighting problem

The thrust of Examiner's argument is that one lighting problem is the same as any other lighting problem and that there are no significant structural differences between a bicycle handle and a grill handle. *See* Examiner's Answer at 13-15. The Examiner, however, has failed to address or distinguish two cases cited in the Appeal Brief where very similar arguments were rejected by the Federal Circuit. *See* Appeal Brief at 14-15. In the first case, the court found that a hooking problem for a hose clamp is not the same as a hooking problem for a garment, despite the fact that there were no significant structural differences between the claimed hook and the prior art hook and the fact that the invention was simple. *In re Oetiker*, 977 F.2d 1443, 1447, (Fed. Cir. 1992).

In the second case, which was also ignored by the Examiner, the Federal Circuit held that a broken blade problem in a mixer was not pertinent to a broken air vane problem on an aircraft. *In re Greene*, 1994 U.S. App. LEXIS 5103, *2-4 (Fed. Cir. 1994). Both the mixer blade and the air vane included substantially the same structure: a weakening notch which would allow the blade/air vane to break away when subjected to an impact, instead of shattering. *Id*.

Instead of addressing these significant and dispositive cases, the Examiner takes the position that the only problem facing the present inventors is how "to cast visible radiant energy in at least one direction to render objects in that direction visible." *See* Examiner's Answer at 14. The Examiner's oversimplified definition of the problem

cannot be correct, otherwise the test which limits the scope of the relevant prior art would be meaningless and unworkable. Using the Examiner's reasoning, any prior art which included a light bulb (or any other source of light) would be relevant to the present invention.

Indeed, there were many more significant problems facing the present inventor, problems which were not pertinent in the context of Shoji. These problems primarily arose due to the significant structural differences between a bicycle and a grill. In contrast to the Examiner's unsupported and conclusory assertion, see Examiner's Answer at 15, how a different body may alter the orientation of the illumination device is relevant to solving the problem. As discussed in more detail in the Appeal Brief at 16-17, the way a bicycle handle moves as the bicycle is traveling is substantially different from the way a barbecue grill handle moves as the grill lid is opened and closed. Bicycle handles rotate about an axis that is perpendicular to the handle, while grill handles rotate about an axis that is parallel to the handle. Importantly, the orientation of a bicycle handle with respect to the target surface is always the same. In contrast, the orientation of a grill handle with respect to the target surface changes as the grill lid is opened and closed, since the grill handle rotates with respect to the target surface. Moreover, bicycle lights are structured to direct light in the bicycle's direction of travel while the claimed grill lights are structured to direct light at the cooking surface (i.e., the grill is self-illuminating). Even further, using the bicycle as a frame of reference, the bicycle lamp directs light at a moving surface. In contrast, using the grill as a frame of reference, the claimed grill lights are structured to direct light at the cooking surface which is stationary with respect to the grill.

b. The Examiner has failed to set forth sufficient evidence to show that Shoji is within the same field of endeavor as the claimed invention

The Examiner fails to address or distinguish any of the cases cited by Appellants, which show that Shoji is not within the same field of endeavor as the claimed invention. See In re Dance, 160 F.3d 1339, 1343 (Fed. Cir. 1998) (field of endeavor should be narrowly construed); In re Clay, 966 F.2d 656, 659 (Fed. Cir. 1992) (prior art is not within applicant's field of endeavor merely because they both relate to the same industry); In re Huene, 2000 U.S. App. LEXIS 19978 (Fed. Cir. 2000) (it is inappropriate to consider a reference to be in the same field of endeavor merely because the USPTO assigned the subject invention and the prior art reference to the same class). Instead, the Examiner merely cites to one case, In re Bigio, 381 F.3d 1320 (Fed. Cir. 2004), which actually supports Appellants' position.

In *Bigio*, the Federal Circuit held that a prior art toothbrush was within the same field of endeavor – i.e., "field of hand-held brushes having a handle segment and a bristle substrate segment" – as a claimed hair brush. *Id.* at 1325-26. The holding was based in large part on the fact that the claim term "hair brush" was afforded a broad construction. *See id.* at 1324-25 ("Bigio's challenge to the Board's determination that the toothbrush references are analogous art requires this court to review the Board's construction of the disputed claim term "hair brush"). The Examiner has failed to draw an analogy to *Bigio* by pointing to any language in the subject claims that require a similarly broad construction. Indeed, no analogy can be drawn because the subject claims are styled in Jepson format to affirmatively claim that the light fixture is attached to a barbecue grill or specific structures thereof.

Bigio also sets forth an evidentiary hurdle for proving that a prior art reference is within the same field of endeavor as a claimed invention: "substantial evidence must support the PTO's factual assessment of the field of endeavor." Id. at 1326. Even further, Bigio instructs that "the field of the invention [should be set] by consulting the structure and function of the claimed invention as perceived by one of ordinary skill in the art." Id. Taking these two propositions into consideration, it is clear that "the PTO must show adequate support for its findings on the scope of the field of endeavor in the application's written description and claims, including the structure and function of the invention. Id.

The Examiner's showing of support for its finding on the scope of the Appellants' field of endeavor is wholly inadequate. First, the Examiner fails to clearly set forth his definition of the field of endeavor for the present invention. *See Examiner's Answer* at 14-15. Without setting forth a definition to compete with Appellants' proposed definition – i.e., lighting fixtures for barbecue grills, *see* Appeal Brief at 11 – the Examiner has left it to Appellants and the Board of Appeals to guess for what definition he is arguing.

Second, the Examiner concludes that Shoji is within the Appellants' field of endeavor by improperly comparing the disclosure of Shoji to the disclosure of Grisamore. Moreover, the Examiner focuses on one small aspect of the claimed invention (i.e., that the light is connected to a handle) and ignores the rest. *Bigio* instructs that a proper analysis involves the comparison of the structure and function of the *claimed invention* with the prior art. *Id.* at 1327. The claimed invention in this case is not a light fixture attached to a handle, but is a barbecue grill having an attached light fixture. Unlike *Bigio*, where the differences were "of the most obvious kind" – akin to changing the size

and substituting a material – there are substantial differences between the claimed grills (with attached light fixtures) and bicycles (with attached lamps), despite the fact that both grills and bicycles have handles. *See* Appeal Brief at 13-14. The claims include limitations which give rise to significant structural and functional differences. *See*, especially, claim 27 which calls for barbecue grill having a hinged connection between an upper member and a lower member, wherein the grill has a handle attached to the upper member. The handle has a longitudinal axis which is parallel to the pivot axis of the hinge.

2. The Examiner's finding of motivation to combine is clearly based on the misguided proposition that one handle is the same as any other handle

Citing to *In re McLaughlin*, 443 F.2d 1392 (CCPA 1971), the Examiner claims that Shoji and Grisamore include the requisite motivation to combine since "Grisamore et al. suggest necessary need to illuminate the cooking area onto the barbecue grill lid handle and the reference Shoji suggest the details of the illumination device that may be removable relative to the handle or the like (e.g. column 3, line 9). There are several flaws with this assertion.

First, the Examiner mischaracterizes what is disclosed by Shoji. Shoji suggests the details of an illumination device that may be removable relative to a bicycle handle, not a barbecue grill handle or even a handle generally. Shoji presented a light fixture strictly in the context of a bicycle or motorcycle, and did not suggest use of the device outside of that context. *See* Shoji, e.g., at column 1, lines 8-11, 64-66 and column 4, lines 29-33. Moreover, Grisamore does not disclose or suggest attaching a light fixture to a handle, and merely discloses a barbecue handle which includes an internal light fixture.

To the extent that Grismore discussed the prior art, it referred to light fixtures which attached to a "tripod . . . , to nearby post or wail, or . . . to a nearby tray or other physical object," not ones that attach to grill handles. *See* Grisamore, column 1, lines 10-20. Given the lack of disclosure in both Grisamore and Shoji of a light fixture attached to a barbecue grill handle, the Examiner is no doubt taking the position that one handle is the same as any other handle, despite his vehement denial. *See* Examiner's Answer at 17-18. This position is untenable considering the significant structural and functional differences between a grill handle and a bicycle handle. *See* Appeal Brief at 13-14 and 16-17.

Second, the McLaughlin case, which the Examiner relies upon to support his rejection, is inapposite to the instant case since it involves substantially different factual circumstances. In McLaughlin, the claim at issue called for a railway box car having longitudinal sides, each of which had door openings near opposite ends of the car and side filling panels to prevent lateral shifting of the load. The Examiner in that case cited two references, one of which disclosed a railway box car having door openings in the longitudinal side walls at diagonally opposite ends of the car and the other of which disclosed a railway car having adjustable side filler panels. Importantly, both of the references cited by the examiner in that case disclosed the relevant structures (i.e., the doors and the filler panels) in the context of a rail car, and specifically disclosed that the relevant structure were disposed exactly as claimed (i.e., on the longitudinal side walls). In the instant case, however, the art cited by the Examiner discloses lighting fixtures which are not attached as claimed, i.e., to a barbecue grill handle. Shoji discloses a lighting fixture attached to a bicycle or motorcycle handle while Grisamore discloses prior art lighting fixtures being attached to nearby physical objects, such as a post or tray.

Third, the Examiner fails to address or distinguish the present situation from In re Fine, 837 F.2d 1071 (Fed. Cir. 1988), which was discussed in detail in the Appeal Brief at 18-19. Fine is especially relevant since it rebuts the Examiner's argument that Grisamore merely "recites what was well known in the art . . . [and] contains a positive motivation to combine Shoji with a barbecue grill to arrive at the present invention." See Examiner's Answer at 17. In Fine, the claim at issue, which called for a gas chromatograph, a converter, and a nitric oxide detector, was rejected on the basis of a first prior art patent, which disclosed a gas chromatograph, a converter, and a sulfur detector, and a second prior art patent, which disclosed a nitric oxide detector. Id. at 1072-75. The Federal Circuit held that the first prior art patent did not suggest the arrangement to detect nitrogen compounds since it actually warned about adverse affects caused by the presence of nitrogen. *Id.* In similar fashion, Grisamore warns about adverse affects caused the presence of light fixtures which are attached to tripods, posts, trays, or other nearby structures (i.e., cumbersome, awkward, expensive) and, therefore, does not suggest the claimed arrangement.

3. The Examiner failed to support his assertion that others have failed to receive a valid patent on the claimed invention

In response to Appellants' argument that others have failed to make the combination suggested by the Examiner, the Examiner takes the surprising position that "other[s] have failed to receive a valid patent on applicant's claimed invention because the modification was well known when Grisamore et. al patent was issued (e.g., column 1, lines 10-20)." The Examiner fails to support this argument by pointing to any such failed patent applications. *See In re Oetiker*, 977 F.2d 1443, 1446-47 (Fed. Cir. 1992) (rejecting examiner's argument that Oetiker's catch is a common everyday mechanical

concept that is various employed in many applications since "[n]o such references were cited"). Moreover, the Examiner's position is belied by the fact that he relies upon Shoji for its disclosure of a light fixture attached to a bike handle, instead of relying upon Grisamore's disclosure at column 1, lines 10-20.

B. Claims 3-5, 19-20, and 27-29 are not obvious over Sutherland.

In response to Appellants' argument that claims 3-5, 19-20 and 27-29 are not obvious in view of Sutherland, the Examiner provides a string cite of cases without describing how any of them relate to the present case. In fact, many of the cases cited by the Examiner support Appellants' position.

For example, in the case of *In re Fine*, 837 F.2d 1071, 1072-75 (Fed. Cir. 1988), the court overruled the examiner's finding that a claim, which called for a gas chromatograph, a converter, and a nitric oxide detector, was obvious in view of a first prior art patent, which disclosed a gas chromatograph, a converter, and a sulfur detector, and a second prior art patent, which disclosed a nitric oxide detector. The Federal Circuit held that the first prior art patent did not suggest the arrangement to detect nitrogen compounds since it actually warned about adverse affects caused by the presence of nitrogen. In the instant case, the Examiner combines Sutherland with Grisamore, which warns against attaching light fixtures to tripods, posts, trays, or other nearby structures.

In the case of *In re Jones*, 958 F.2d 347, 349 (Fed. Cir. 1992), the examiner found that a claim calling for the 2-(2'-aminoethoxy) ethanol salt of dicamba was obvious in view of a prior art patent's disclosure of diethanolamine salt of dicamba since they were "closely related in structure." Reasoning that "generalization is to be avoided insofar as specific structures are alleged to be *prima facie* obvious one from the other," the Court

declined to uphold the Examiner's conclusion. *Id.* at 350. Like the examiner in *Jones*, the present Examiner is using generalizations to reject the Appellants' grill handle light in view of prior art which shows light fixtures attached to bicycle handles (i.e., one handle is the same as any other handle).

In the case of *In re Kotzab*, 217 F.3d 1365, 1370 (Fed. Cir. 2000), the Examiner rejected the claims calling for a single temperature sensor to control a plurality of flow control valves on the basis that a prior art patent taught "one system" for controlling a number of valves. The Examiner's position was rejected by the Federal Circuit because the Examiner failed to present substantial evidence that "one system" is equal to "one sensor." *Id.* Like the examiner in *Kotzab*, the present Examiner has failed to provide substantial evidence that a bicycle handle is equal to a grill handle.

C. The art cited by the Examiner does not disclose all of the limitations of claim 3.

Claim 3 clearly calls for "the fixture [to have] a plurality of first mating members." A person of ordinary skill in the art would understand this limitation to call for at least one fixture, wherein that one fixture (i.e., the "single fixture referred to in the Appeal Brief at 23) has more than one mating member. To that extent, it is double inclusion for the Examiner to say that Sutherland – which shows multiple and separate fixtures – meets this limitation.

D. The art cited by the Examiner does not disclose all of the limitations of claims 4 and 19.

The Examiner admits that Sutherland does not disclose two light pods, wherein each light pod has its own power source. *See* Examiner's Answer at 20 ("even without the cumbersome second power source, the headlamps of Sutherland can selectively turn

on and off through the individual switch"). The Examiner's rejection on the basis of Sutherland is therefore improper.

With regard to Examiner's citation to *St. Regis Paper Co. v. Bemis Co.*, 549 F.2d 833 (7th Cir. 1977) for the proposition that mere duplication of the essential working parts of a device involves only routine skill, the Examiner ignores one important caveat. *Regis* held that rearranging old elements in new combinations with the old elements performing the same function is obvious, "[u]nless the combination is synergistic, that is, resulting in an effect greater than the sum of the several effects taken separately . . ." *Id.* at 838 (quoting *Black Rock v. Pavement Co.*, 396 U.S. 57, 61 (1969). Claims 4 and 19 call for two removable pods, each of which include an independent power source. The inclusion of multiple removable pods has a synergistic effect, that is greater than merely providing greater illumination for the cooking surface. Since each pod has its own power source, one pod can be removed from the fixture and used at an alternate location while still using the remaining pod to illuminate the cooking surface. Such a result cannot be had with the device disclosed by Sutherland, since both pods disadvantageously use the same power source.

E. The art cited by the Examiner does not disclose all of the limitations of claims 5 and 20.

The Examiner's rejection of claims 5 and 20 on the basis of Sutherland is unfounded. Although the Examiner purports to "reasonably interpret the handle bar being the handle portion between the first and second pod," the Examiner diverges from the claim language which clearly calls for the fixture, not the handle bar, to have a handle portion between the two pods. Sutherland does not utilize a fixture having a handle

portion between the two pods and instead utilizes two fixtures which are spaced apart on a handle bar. For this reason, the Examiner's rejection should be overruled.

F. The art cited by the Examiner does not disclose all of the limitations of claims 15 and 27.

In response to Appellants' arguments regarding the "modular" limitations of claims 15 and 27, the Examiner responded that "the features upon which applicant relies (i.e., 'modular first and second mating members') are not recited in the claim(s)." The Examiner is mistaken on this point, since the last limitation of claim 15 calls for "the first mating member and the second mating member being modular" and the last limitation of claim 27 calls for "the plurality of first mating members of the housing and the second mating members of the first pod and second pod being modular." Moreover, Appellants do not attempt to read limitations from the specification into the claims; Appellants merely refer to the specification to lend meaning to the term "modular."

The case cited by the Examiner, *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893), is inapposite to the instant case. *Howard* held that "forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art." The modular design of the first and second mating members does not involve forming in one piece an article which has formerly been formed in two pieces. Conversely, the modular design provides flexibility in use of the light and involves forming the light into two pieces, whereby the pods can be attached to various housings at different locations and the housings at different locations can receive various pods. *See* para. [0082], [0090], [0100].

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For the reasons advanced above, and for those presented in the Appeal Brief filed on February 5, 2007, Appellants respectfully contend that each claim is patentable. Therefore, reversal of all rejections is respectfully requested.

July 31, 2007

Respectfully,

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